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Life Sciences Reporting Summary

Nature Research wishes to improve the reproducibility of the work we publish. This form is published with all life science papers and is intended to promote consistency and transparency in reporting. All life sciences submissions use this form; while some list items might not apply to an individual manuscript, all fields must be completed for clarity.

For further information on the points included in this form, see Reporting Life Sciences Research. For further information on Nature Research policies, including our data availability policy, see Authors & Referees and the Editorial Policy Checklist.

Experimental design

1. Sample size

   Describe how sample size was determined. G power software was used to calculate the sample size.

2. Data exclusions

   Describe any data exclusions. No data was excluded.

3. Replication

   Describe whether the experimental findings were reliably reproduced. experimental findings were reliably reproduced

4. Randomization

   Describe how samples/organisms/participants were allocated into experimental groups. The mice were allocated to groups randomly.

5. Blinding

   Describe whether the investigators were blinded to group allocation during data collection and/or analysis. No blinding was used.

   Note: all studies involving animals and/or human research participants must disclose whether blinding and randomization were used.

6. Statistical parameters

   For all figures and tables that use statistical methods, confirm that the following items are present in relevant figure legends (or the Methods section if additional space is needed).

n/a	Confirmed	
☐	☒	The exact sample size (*n*) for each experimental group/condition, given as a discrete number and unit of measurement (animals, litters, cultures, etc.)
☐	☒	A description of how samples were collected, noting whether measurements were taken from distinct samples or whether the same sample was measured repeatedly.
☐	☒	A statement indicating how many times each experiment was replicated
☐	☒	The statistical test(s) used and whether they are one- or two-sided (note: only common tests should be described solely by name; more complex techniques should be described in the Methods section)
☐	☒	A description of any assumptions or corrections, such as an adjustment for multiple comparisons
☐	☒	The test results (e.g. *p* values) given as exact values whenever possible and with confidence intervals noted
☐	☒	A summary of the descriptive statistics, including central tendency (e.g. median, mean) and variation (e.g. standard deviation, interquartile range)
☐	☒	Clearly defined error bars

See the web collection on statistics for biologists for further resources and guidance.

Software

Policy information about availability of computer code

7. Software

   Describe the software used to analyze the data in this study. Flowjo, Integrative Genomics Viewer, Prism

Nature Immunology: doi:10.1038/ni.3832

For all studies, we encourage code deposition in a community repository (e.g. GitHub). Authors must make computer code available to editors and reviewers upon request. The *Nature Methods* guidance for providing algorithms and software for publication may be useful for any submission.

Materials and reagents

Policy information about availability of materials

8. Materials availability

Indicate whether there are restrictions on availability of unique materials or if these materials are only available for distribution by a for-profit company.

RORgtM/M mice are available from the authors.

9. Antibodies

Describe the antibodies used and how they were validated for use in the system under study (i.e. assay and species).

Antigen Source clone Cat. Lot Species Application
IL-17A eBioscience eBio17B7 17-7177-81 E026271 mouse, rat FC
CD4 Biolegend GK1.5 100406 B225057 mouse FC
CD8 eBioscience 53-6.7 15-0081-82 E026285 mouse FC
Thy1.2 eBioscience 53-2.1 12-0902-81 E01379-1634 mouse FC
CD24 eBioscience M1/69 15-0242-81 E031467 mouse FC
CD3 BD Biosciences 145-2C11 553066 06163 mouse FC
CD19 eBioscience eBio1D3 15-0193-81 E06107-1631 mouse FC
CD11b eBioscience M1/70 12-0112-82 E01073-150 mouse FC
GM-CSF Biolegend MP1-22E9 505406 B196270 mouse ICFC
IFNg Biolegend XMG1.2 505806 B232733 mouse ICFC
CD45 Biolegend 104 109823 N/A mouse ICFC
CD44 BD Biosciences IM7 553133 53280 mouse FC
CD25 Biolegend PC61.5 102008 B122202 mouse FC
IL-4 eBioscience 11B11 17-7041-82 B138607 mouse FC
Foxp3 eBioscience FJK-16s 17-5773-82 E07303-1633 bovine, dog, cat, mouse, pig, rat FC
Linage Biolegend 145-2c11,rb6-8c5,m1/70,ra3-6b2 133301 B142826 mouse FC
CD127 Biolegend A7R34 135014 B142788 mouse FC
CD117 Biolegend 2B8 105812 B217855 mouse FC
RORgt eBioscience B2D 12-6988-80 E02046-325 human, mouse, rheusus monkey FC
TCRb eBioscience H57-597 553172 7047663 mouse FC
RORgt BD Bioscience Q31-378 562663 3302666 mouse FC, IHC, WB
beta-actin Santa Cruz Biotechnology AC-15 SC-8422 OAAD00224 human, mouse, rat WB, IHC, IP
GFP Life technology polyclonal A11122 1691382 tag IHC, WB, ICC, IHC, IP, ChIP, FC, ELISA,IF
HA Sigma-aldrich 114-2C-7 05-902R 53747 tag WB
SRC1 Cell Signaling 128E7 2191S 1130X208 human, mouse, rat, monkey WB, IP, IHC, ChIP
FLAG Sigma-aldrich M2 F1840 SLBQ6349V tag WB, IP, IHC, IF, ChIP

10. Eukaryotic cell lines

a. State the source of each eukaryotic cell line used.

HEK293t,Platinum-Eco

b. Describe the method of cell line authentication used.

Obtained from ATCC

c. Report whether the cell lines were tested for mycoplasma contamination.

All cells lines were negative for mycoplasma contamination.

d. If any of the cell lines used in the paper are listed in the database of commonly misidentified cell lines maintained by ICLAC, provide a scientific rationale for their use.

No commonly misidentified cell lines were used.

Nature Immunology: doi:10.1038/ni.3832

Animals and human research participants

Policy information about studies involving animals; when reporting animal research, follow the ARRIVE guidelines

11. Description of research animals

Provide details on animals and/or animal-derived materials used in the study.	C57BL/6 mice, Rorc2 KO mice, Rorc2 mutant mice and Rag1 KO mice, female, 6-12weeks of age were used.

Policy information about studies involving human research participants

12. Description of human research participants

Describe the covariate-relevant population characteristics of the human research participants.	This study did not involve human research participants.

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